

1410 North Hilton • Boise, Idaho 83706-1255 • (208) 373-0502

Dirk Kempthorne, Governor Toni Hardesty, Director

May 19, 2006

Certified Mail No. 7005 1160 0000 1550 3925

Eric Jones NxEdge Inc. of Boise 7500 West Mossy Cup Street Boise, ID 83709

RE:

Facility ID No. 001-00202, NxEdge Inc. of Boise, Boise

Final Permit Letter

Dear Mr. Jones:

The Idaho Department of Environmental Quality (DEQ) is issuing Permit to Construct (PTC) No. P-050038 to NxEdge Inc. of Boise, in accordance with IDAPA 58.01.01.200 through 228 (Rules for the Control of Air Pollution in Idaho).

This permit is based on your permit application materials received on August 18 and October 21, 2005. This permit is effective immediately and replaces PTC No. P-040007, issued on July 22, 2005, the terms and conditions of which no longer apply. This permit does not release NxEdge Inc. of Boise from compliance with all other applicable federal, state, or local laws, regulations, permits, or ordinances.

A representative of the Boise Regional Office is available for a meeting to discuss the permit terms and requirements. If you wish to schedule a meeting with DEQ, DEQ recommends the following representatives attend the meeting: your facility's plant manager, responsible official, environmental contact, and any operations staff responsible for day-to-day compliance with permit conditions.

Pursuant to IDAPA 58.01.23, you, as well as any other entity, may have the right to appeal this final agency action within 35 days of the date of this decision. However, prior to filing a petition for a contested case, I encourage you to call Bill Rogers at (208) 373-0502 to address any questions or concerns you may have with the enclosed permit.

Sincerely,

Martin Bauer, Administrator

Martin-Bane

Air Quality Division

MB/NBD/bf

Permit No. P-050038

Enclosures

G:\Air Quality\Stationary Source\SS Ltd\PTC\NxEdge\Final\P-050038\_NxEdge\_Final.doc

c: June Hues, Boise Regional Office
Bill Rogers, Permit Coordinator, Air Quality Division
Natalie DelRio, Associate Engineer, Division of Technical Services
Marilyn Seymore/ Pat Rayne, Air Quality Division
Laurie Kral, US EPA Region 10
Permit Binder
Source File
Phyllis Heitman (Ltr Only)
Reading File (Ltr Only)



# Air Quality PERMIT TO CONSTRUCT

# State of Idaho Department of Environmental Quality

**PERMIT No.:** P-050038

**FACILITY ID No.: 001-00202** 

AQCR: 64

CLASS: SM

**SIC:** 3471

**ZONE: 11** 

UTM COORDINATE (km): 558.5, 4825.4

1. PERMITTEE

NxEdge Inc. of Boise

2. PROJECT

Permit to Construct Revision

| 3. MAILING ADDRESS 7500 West Mossy Cup                   | CITY<br>Boise                   | STATE<br>ID               | ZIP<br>83709 |
|--|---------------------------------|---------------------------|--------------|
| 4. FACILITY CONTACT Eric Jones                           | TITLE Sales and Project Manager | TELEPHONI<br>208-362-7200 |              |
| 5. RESPONSIBLE OFFICIAL Steve Neighbors                  | TITLE Vice President            | TELEPHONI<br>208-362-7200 |              |
| 6. EXACT PLANT LOCATION<br>UTM 11 558526E 4825066N (WGS8 | 4/NAD83)                        | COUNTY<br>Ada             |              |

# 7. GENERAL NATURE OF BUSINESS & KINDS OF PRODUCTS

Application of Engineered Coatings, Precision Manufacturing, and Material Cleaning and Revitalization Services

#### 8. GENERAL CONDITIONS

This permit is issued according to IDAPA 58.01.01.200, Rules for the Control of Air Pollution in Idaho, and pertains only to emissions of air contaminants regulated by the state of Idaho and to the sources specifically allowed to be constructed or modified by this permit.

This permit (a) does not affect the title of the premises upon which the equipment is to be located; (b) does not release the permittee from any liability for any loss due to damage to person or property caused by, resulting from, or arising out of the design, installation, maintenance, or operation of the proposed equipment; (c) does not release the permittee from compliance with other applicable federal, state, tribal, or local laws, regulations, or ordinances; (d) in no manner implies or suggests that the Department of Environmental Quality (DEQ) or its officers, agents, or employees, assume any liability, directly or indirectly, for any loss due to damage to person or property caused by, resulting from, or arising out of design, installation, maintenance, or operation of the proposed equipment.

This permit will expire if construction has not begun within two years of its issue date or if construction is suspended for one year.

This permit has been granted on the basis of design information presented with its application. Changes of design or equipment may require DEQ approval pursuant to the Rules for the Control of Air Pollution in Idaho, IDAPA 58.01.01.200, et seq.

| TONI HARDESTY. | DIRECTOR              |
|----------------|-----------------------|
| DEPARTMENT OF  | ENVIRONMENTAL QUALITY |

DATE ISSUED:

May 19, 2006

# **Table of Contents**

| <b>ACRO</b> | NYMS, UNITS, AND CHEMICAL NOMENCLATURE | 3  |
|-------------|--|----|
| 1.          | PERMIT TO CONSTRUCT SCOPE              | 4  |
| 2.          | ENGINEERED COATINGS                    | 5  |
| 3.          | PLASMA AND WIRE ARC SPRAY              | 7  |
| 4.          | SBU PARTS COATING PLASMA SPRAY AREA    | 11 |
| 5.          | PERMIT TO CONSTRUCT GENERAL PROVISIONS | 14 |

# Acronyms, Units, and Chemical Nomenclature

AIRS Aerometric Information Retrieval System

AQCR Air Quality Control Region

CAA Clean Air Act

CFR Code of Federal Regulations

CO carbon monoxide

DEQ Department of Environmental Quality
EPA U.S. Environmental Protection Agency

HAPs hazardous air pollutants

IDAPA a numbering designation for all administrative rules in Idaho promulgated in accordance with

the Idaho Administrative Procedures Act

km kilometer

lb/hr pound per hour

MMBtu million British thermal units

NO<sub>2</sub> nitrogen dioxide

NSPS New Source Performance Standards

PM particulate matter

PM<sub>10</sub> particulate matter with an aerodynamic diameter less than or equal to a nominal 10

micrometers

PSD Prevention of Significant Deterioration

PTC permit to construct
PTE potential to emit

SIC Standard Industrial Classification

SIP State Implementation Plan

T/yr tons per year

UTM Universal Transverse Mercator VOC volatile organic compound

|            | AIR QUALITY P        | ERMIT TO CONSTRUCT NUMB   | ER: P-050038 |              |
|------------|----------------------|---------------------------|--------------|--------------|
| Permittee: | NxEdge Inc. of Boise | Facility ID No. 001 00202 | Data Issueda | May 10, 2006 |
| Location:  | Boise, Idaho         | Facility ID No. 001-00202 | Date Issued: | Way 19, 2006 |

# 1. PERMIT TO CONSTRUCT SCOPE

# **Purpose**

- 1.1 This PTC is a revision of the facility's existing permit. This permit action included a facility name change and change in responsible official.
- 1.2 This PTC replaces PTC No. P-040007, issued on July 22, 2005, the terms and conditions of which no longer apply.

# **Regulated Sources**

Table 1.1 lists all sources of regulated emissions in this PTC.

Table 1.1 SUMMARY OF REGULATED SOURCES

| Permit Section | Source Description               | Emissions Control(s)                     |
|----------------|----------------------------------|--|
| 2              | Spray Application Booths         | Overspray Arrestors                      |
| 2              | Curing Ovens                     | None                                     |
| 3              | Gen 3 Chamber                    | Cyclone #1 & Filter Unit                 |
| 3              | Gen 4 Chamber                    | Cyclone #2 & (2) Filter Units            |
| 3              | Gen 5 Chamber                    | Cyclone & Filter with 20 Units Installed |
| 3              | Plasma Coating Room              | Cyclone & Filter Unit                    |
| 3              | Tube Finishing Box               | Cyclone & Filter Unit                    |
| 3              | Tube Blasting and Wire Bonding   | (2) Filter Units, Cyclone                |
| 3              | Vibratory Screen                 | (2) Filter Units, Cyclone                |
| 4              | Spray Room, SBUFARR1             | Filter Unit                              |
| 4              | Spray Room, SBUFARR2             | Filter Unit                              |
| 4              | Spray Room, SBUFARR3             | Filter Unit                              |
| 4              | Air Supply System Heater, SBUHTR | None                                     |
| 4              | Air Supply System Heater, SBUHTR | None                                     |
| 4              | Air Supply System Heater, SBUHTR | None                                     |

| AIR QUALITY PERMIT TO CONSTRUCT NUMBER: P-050038 |                      |   |              |               |
|--|----------------------|---|--------------|---------------|
| Permittee:                                       | NxEdge Inc. of Boise | Facility ID No. 001-00202 Date Issued: May 19, 2006 |              | May 10, 2006  |
| Location:  | Boise, Idaho         | Facility 15 140, 001-00202                          | Date Issued. | Widy 17, 2000 |

#### 2. ENGINEERED COATINGS

## 2.1 Process Description

The Engineered Coatings process consists of four spray application booths equipped with overspray arrestors and exhaust fans, two electrically-fired curing ovens, one 0.6 MMBtu/hr natural gas-fired curing oven, and three suction/pressure media blasters. One of the spray booths is used to apply wet coatings. The three remaining spray booths are used to apply dry, powder coatings. The ovens are used to cure powder coated products. The media blasters are used to prepare aluminum and stainless steel parts for coating. Two of the media blasters, Media Blasters #1 and #2, vent to atmosphere through emission point CAMBR. The third vents back into the building.

#### 2.2 Emissions Control Description

Table 2.1 MEDIA BLASTERS #1 AND #2 EMISSIONS UNITS

| Emissions Unit(s) / Process(es) | Emissions Control Device | Emissions Point |
|---------------------------------|--------------------------|-----------------|
| Spray Application Booths        | Overspray Arrestors      | WETC            |
| Curing Ovens                    | None                     | ECOVEN1         |
| Media Blasting Room             | Dust Collectors          | CAMBR           |

#### **Emissions Limits**

#### 2.3 Emissions Limits

The PM<sub>10</sub> and chromium (VI) emissions from the Engineered Coatings process shall not exceed any corresponding emissions rate limits listed in Table 2.2.

Table 2.2 ENGINEERED COATINGS PROCESS EMISSIONS LIMITS

| Source                         | PM     | 10    | Chromium |
|--------------------------------|--------|-------|----------|
| Description                    | lb/day | lb/yr | lb/yr    |
| Spray Application Booths, WETC | 0.3    | 50    | 0.004    |

#### 2.4 Visible Emissions Limit

Emissions from the WETC stack, ECOVEN1 stack, CAMBR stack or any other stack, vent, or functionally equivalent opening associated with the Engineered Coatings process, shall not exceed 20% opacity for a period or periods aggregating more than three minutes in any 60-minute period as required by IDAPA 58.01.01.625. Opacity shall be determined by the procedures contained in IDAPA 58.01.01.625.

# **Operating Requirements**

#### 2.5 Material Purchase Records

The permittee shall maintain the purchase records of all manufacturing-related materials that contain PM<sub>10</sub> and chromium (VI) including but not limited to coatings, blast media, solvents, and degreasers. The purchase records shall remain on site for the most recent two year period and shall be made available to DEQ representatives upon request.

| AIR QUALITY PERMIT TO CONSTRUCT NUMBER: P-050038 |                      |                           |              |              |  |
|--|----------------------|---------------------------|--------------|--------------|--|
| Permittee:                                       | NxEdge Inc. of Boise | T 184 15 N 001 00000      |              |              |  |
| Location:  | Boise, Idaho         | Facility ID No. 001-00202 | Date Issued: | May 19, 2006 |  |

#### 2.6 Material Safety Data Sheets

The permittee shall maintain the MSDSs for the manufacturing-related materials that contain PM<sub>10</sub> and chromium (VI) purchased pursuant to Permit Condition 2.5. The MSDSs shall remain on site at all times and shall be made available to DEQ representatives upon request.

## 2.7 Spray Application Booths Overspray Arrestors

The air pollution control equipment identified in Table 2.1 shall be operated whenever the spray application booths are operating.

# 2.8 Media Blasting Room Dust Collectors

The air pollution control equipment identified in Table 2.1 shall be operated whenever the media blasting room is operated.

# Monitoring and Recordkeeping Requirements

# 2.9 Material Usage Records

The permittee shall monitor and record monthly, the usage of each manufacturing-related material that contains PM<sub>10</sub> and chromium (VI). The usage records shall remain on site for the most recent two year period and shall be made available to DEQ representatives upon request.

## 2.10 PM<sub>10</sub> and chromium (VI) Monitoring Requirements

The permittee shall monitor and record the monthly and annual PM<sub>10</sub> and chromium (VI) emissions from engineered coatings process using the purchase records required by Permit Condition 2.5, the MSDS' required by Permit Condition 2.6, and the material usage records required by Permit Condition 2.9 to demonstrate compliance with Permit Condition 2.3. Annual emissions shall be determined by summing monthly emissions over the previous consecutive 12-month period. Records of this information shall be maintained on site for the most recent two year period and shall be made available to DEQ representatives upon request.

|            | AIR QUALITY P        | ERMIT TO CONSTRUCT NUMB   | ER: P-050038 |              |
|------------|----------------------|---------------------------|--------------|--------------|
| Permittee: | NxEdge Inc. of Boise | Facility ID No. 001 00202 | Data Jassada | May 10, 2006 |
| Location:  | Boise, Idaho         | Facility ID No. 001-00202 | Date issued: | May 19, 2006 |

#### 3. PLASMA AND WIRE ARC SPRAY

#### 3.1 Process Description

The Plasma and Wire Arc Spray process coats small parts, and preps, coats, and finishes stainless steel tubes in a series steps. The steps are performed in the following process areas: Gen 3 Chamber, Gen 4 Chamber, Gen 5 Chamber, plasma coating room, tube finishing box, tube blasting and wire bonding, and vibratory screen.

# 3.2 Emissions Control Description

Gen 3 Chamber used for tube coating is controlled by Cyclone #1 and Filter Unit #1 connected in series. The cyclone has a removal efficiency of 80%, and the filter unit has a removal efficiency of 98.6%. Gen 4 Chamber is controlled by Cyclone #2 and Filter Unit #2 connected in series. The cyclone has a removal efficiency of 80%, and the filter unit has a removal efficiency of 96.3%. Gen 5 Chamber is controlled by a cyclone and filter unit connected in series. The cyclone has a removal efficiency of 80% and the filter unit removal efficiency of 99.0%. Plasma coating room, tube finishing box, tube blasting and wire bonding, and vibratory screen are controlled by a cyclone and filter unit connected in series. The cyclone has a removal efficiency of 80% and exhausts to a filter unit with a removal efficiency of 99.0%. The tube blasting and wire bonding, and vibratory screen, are each controlled by an additional filter unit, which is placed before the cyclone. This additional filter unit has an efficiency of 97.5%. Table 3.1 lists the emissions unit and control device information for this process.

**Table 3.1 PLASMA AND WIRE ARC SPRAY DESCRIPTION** 

| Emissions Unit(s) / Process(es) | Emissions Control Device                 | Emissions Point |
|---------------------------------|--|-----------------|
| Gen 3 Chamber                   | Cyclone #1 & Filter Unit                 | PLGEN3          |
| Gen 4 Chamber                   | Cyclone #2 & Filter Unit                 | PLGEN4          |
| Gen 5 Chamber                   | Cyclone & Filter with 20 Units Installed | PLGEN5          |
| Plasma Coating Room             | Cyclone & Filter Unit                    | PLFARR1         |
| Tube Finishing Box              | Cyclone & Filter Unit                    | PLFARRI         |
| Tube Blasting and Wire Bonding  | (2) Filter Units, Cyclone                | PLFARR1         |
| Vibratory Screen                | (2) Filter Units, Cyclone                | PLFARR1         |

#### **Emissions Limits**

#### 3.3 PM<sub>10</sub>Emissions Limits

The PM<sub>10</sub> emissions from the Plasma and Wire Arc Spray process shall not exceed any corresponding emissions rate limits listed in Table 3.2.

Table 3.2 PLASMA AND WIRE ARC SPRAY

| Source<br>Description | PM <sub>10</sub> |       |  |
|-----------------------|------------------|-------|--|
|                       | lb/day           | lb/yr |  |
| PLGEN3                | 0.68             | 136   |  |
| PLGEN4                | 0.26             | 49    |  |
| PLGEN5                | 4.4              | 730   |  |
| PLFARRI               | 0.58             | 85    |  |

| AIR QUALITY PERMIT TO CONSTRUCT NUMBER: P-050038 |                      |                           |              |              |
|--|----------------------|---------------------------|--------------|--------------|
| Permittee:                                       | NxEdge Inc. of Boise | Facility ID No. 001-00202 | Date Issued: | May 19, 2006 |
| Location:  | Boise, Idaho         | Facility 1D No. 001-00202 | Date Issued. | Way 17, 2000 |

## 3.4 Non-carcinogenic Toxic Air Pollutant Emissions Limits

Pursuant to IDAPA 58.01.01.210.08.c, the non-carcinogenic toxic air pollutant emissions from the Plasma and Wire Arc Spray process shall not exceed any corresponding emissions rate limits listed in Table 3.3.

Table 3.3 PLASMA AND WIRE ARC SPRAY EMISSIONS LIMITS

| Source      | Al Metal &<br>Oxide | Calcium<br>Hydroxide | Silicon | Tin    | Yttriun | Zinc   |
|-------------|---------------------|----------------------|---------|--------|---------|--------|
| Description | lb/day              | lb/day               | lb/day  | lb/day | lb/day  | lb/day |
| PLGEN3      |                     |                      | 0.68    |        |         |        |
| PLGEN5      | 0.02                | 2.59                 |         | 0.43   |         | 0.1    |
| PLFARRI     | 0.32                |                      | 0.21    | 0.02   | 0.1     | 0.01   |

## 3.5 <u>Carcinogenic Toxic Air Pollutant Emissions Limits</u>

Pursuant to IDAPA 58.01.01.210.08.c, the carcinogenic toxic air pollutant emissions from the Plasma and Wire Arc Spray process shall not exceed any corresponding emissions rate limits listed in Table 3.4.

Table 3.4 PLASMA AND WIRE ARC SPRAY

| Source<br>Description | Cadmium  | Nickel |
|-----------------------|----------|--------|
|                       | lb/yr    | lb/yr  |
| PLGEN5                | 7.20E-04 |        |
| PLFARR1               | 7.33E-05 | 0.17   |

#### 3.6 <u>Visible Emissions Limit</u>

The permittee shall not discharge any air pollutant to the atmosphere from any point of emission for a period or periods aggregating more than three minutes in any 60-minute period which is greater than 20% opacity as determined by procedures contained in IDAPA 58.01.01.625.

# **Operating Requirements**

#### 3.7 Material Purchase and Production Records

- The permittee shall maintain the purchase records of all manufacturing-related materials for the coating of small parts by the Plasma and Wire Arc Spray process such that compliance with Permit Conditions 3.3, 3.4, and 3.5 can be demonstrated. The purchase records shall remain on site for the most recent two year period and shall be made available to DEQ representatives upon request.
- The permittee shall maintain the production records for the coating of tubes by the Plasma and Wire Arc Spray process such that compliance with Permit Conditions 3.3, 3.4, and 3.5 can be demonstrated. The production records shall remain on site for the most recent two year period and shall be made available to DEQ representatives upon request.

|            | AIR QUALITY P        | ERMIT TO CONSTRUCT NUMB   | ER: P-050038  |              |
|------------|----------------------|---------------------------|---------------|--------------|
| Permittee: | NxEdge Inc. of Boise | Facility ID No. 001 00202 | Data Isaasala | M 10, 2006   |
| Location:  | Boise, Idaho         | Facility ID No. 001-00202 | Date Issued:  | May 19, 2006 |

#### 3.8 Material Safety Data Sheets

The permittee shall maintain the MSDSs for the manufacturing-related materials for the Plasma and Wire Arc Spray process purchased pursuant to Permit Condition 3.7. The MSDSs shall remain on site at all times and shall be made available to DEQ representatives upon request.

#### 3.9 Filter Units and Cyclones Operation

The air pollution control equipment identified in Table 3.1 shall be operated when the Plasma and Wire Arc Spray process is operating.

#### 3.10 Monitoring Equipment

The permittee shall install, calibrate, maintain, and operate, in accordance with manufacturer specifications, equipment to continuously measure the pressure differential across each filter unit at Gen Chamber 3 and Gen Chamber 4.

#### 3.11 Pressure Drop Across Air Pollution Control Device

The pressure drop across each filter unit at Gen Chamber 3 and Gen Chamber 4 shall not exceed 8" of water.

#### 3.12 Operations and Maintenance Manual Requirements

Within 60 days after startup, the permittee shall have developed an O&M manual for the air pollution control equipment associated with the Plasma and Wire Arc Spray process which describes the procedures that will be followed to comply with General Provision 2 and the air pollution control device requirements contained in this permit. The manual shall remain onsite at all times and made available to DEQ representatives upon request.

## Monitoring and Recordkeeping Requirements

#### 3.13 <u>Materials Usage and Production Records</u>

- The permittee shall monitor and record monthly the usage of each manufacturing-related material for coating of small parts by the Plasma and Wire Arc Spray process. The usage records shall remain on site for the most recent two year period and shall be made available to DEQ representatives upon request.
- The permittee shall monitor and record monthly production records for the coating of all tubes by the Plasma and Wire Arc Spray process. The usage records shall remain on site for the most recent two year period and shall be made available to DEQ representatives upon request.

# 3.14 PM<sub>10</sub>, Carcinogenic TAPs, Non-Carcinogenic TAPs, and HAPs Monitoring Requirements

The permittee shall monitor and record the monthly and annual PM<sub>10</sub>, carcinogenic TAPs, non-carcinogenic TAPs, and HAPs emissions from the Plasma and Wire Arc Spray process using the purchase records required by Permit Condition 3.7, the MSDS' required by Permit Condition 3.8, and the materials usage records required by Permit Condition 3.13 to demonstrate compliance with Permit

| AIR QUALITY PERMIT TO CONSTRUCT NUMBER: P-050038 |                      |                           |              |              |
|--|----------------------|---------------------------|--------------|--------------|
| Permittee:                                       | NxEdge Inc. of Boise | Filit- ID N- 001 00202    | D-4- Id-     | M 10 2006    |
| Location:  | Boise, Idaho         | Facility ID No. 001-00202 | Date Issued: | May 19, 2006 |

Conditions 3.3, 3.4, and 3.5. Annual emissions shall be determined by summing monthly emissions over the previous consecutive 12-month period. Records of this information shall be maintained on site for the most recent two year period and shall be made available to DEQ representatives upon request.

## 3.14 PM<sub>10</sub>, Carcinogenic TAPs, Non-Carcinogenic TAPs, and HAPs Monitoring Requirements

The permittee shall monitor and record the monthly and annual PM<sub>10</sub>, carcinogenic TAPs, non-carcinogenic TAPs, and HAPs emissions from the Plasma and Wire Arc Spray process using the purchase records required by Permit Condition 3.7, the MSDS' required by Permit Condition 3.8, and the materials usage records required by Permit Condition 3.13 to demonstrate compliance with Permit Conditions 3.3, 3.4, and 3.5. Annual emissions shall be determined by summing monthly emissions over the previous consecutive 12-month period. Records of this information shall be maintained on site for the most recent two year period and shall be made available to DEQ representatives upon request.

#### 3.15 Pressure Drop

When operating, the permittee shall monitor and record once per day, the pressure differential across each filter unit at Gen Chamber 3 and Gen Chamber 4 to demonstrate compliance with Permit Conditions 3.11 and 3.12.

| AIR QUALITY PERMIT TO CONSTRUCT NUMBER: P-050038 |                      |                           |              |              |
|--|----------------------|---------------------------|--------------|--------------|
| Permittee:                                       | NxEdge Inc. of Boise | Facility ID No. 001 00202 | Data Issued  | 34           |
| Location:  | Boise, Idaho         | Facility ID No. 001-00202 | Date Issued: | May 19, 2006 |

#### 4. SBU PARTS COATING PLASMA SPRAY AREA

#### 4.1 Process Description

The semiconductor business unit (SBU) coats metal parts using a robotic spray process that uses compressed air to transfer powder coating material from automated hoppers to a hot gas stream that deposits it onto parts. The process consists of three automated spray rooms (SBUFARR1, SBUFARR2, SBUFARR3) each equipped with an air supply system, a robotic plasma spray arm for coating parts, and air pollution control equipment.

#### 4.2 Emissions Control Description

Emissions from the robotic plasma spray arm are controlled by an exhaust plenum that directs emissions to a filter assembly with a particulate matter removal efficiency of 95.0% for particles 0.5 microns or larger in size.

Table 4.1 SBU PARTS COATINGS PLASMA SPRAY AREA DESCRIPTION

| Emissions Unit(s) / Process(es)  | Emissions Control Device | <b>Emissions Point</b> |
|----------------------------------|--------------------------|------------------------|
| Spray Room, SBUFARR1             | Filter Unit              | SBUFARRI               |
| Spray Room, SBUFARR2             | Filter Unit              | SBUFARR3               |
| Spray Room, SBUFARR3             | Filter Unit              | SBUFARR3               |
| Air Supply System Heater, SBUHTR | None                     | SBUHTRI                |
| Air Supply System Heater, SBUHTR | None                     | SBUHTR2                |
| Air Supply System Heater, SBUHTR | None                     | SBUHTR3                |

#### **Emissions Limits**

# 4.3 Emissions Limits

The PM<sub>10</sub> emissions from the SBU Parts Coatings Plasma Spray Area stack shall not exceed any corresponding emissions rate limits listed in Table 4.2.

Table 4.2 SBU PARTS COATINGS PLASMA SPRAY AREA EMISSIONS LIMITS

| Source<br>Description | Aluminum<br>Oxide & Metal | Yttrium | PN     | 1 <sub>10</sub> |
|-----------------------|---------------------------|---------|--------|-----------------|
| Description           | lb/day                    | lb/day  | lb/day | lb/yr           |
| SBUFARRI              | 1.27                      |         | 1.27   | 463             |
| SBUFARR2              |                           | 1       | 1.27   | 463             |
| SBUFARR3              |                           |         | 1.27   | 463             |

#### 4.4 Visible Emissions Limit

Emissions from any stack, vent, or functionally equivalent opening associated with the SBU Parts Coatings Plasma Spray Area, shall not exceed 20% opacity for a period or periods aggregating more than three minutes in any 60-minute period as required by IDAPA 58.01.01.625. Opacity shall be determined by the procedures contained in IDAPA 58.01.01.625.

| AIR QUALITY PERMIT TO CONSTRUCT NUMBER: P-050038 |                      |                            |              |              |  |
|--|----------------------|----------------------------|--------------|--------------|--|
| Permittee:                                       | NxEdge Inc. of Boise | Facility ID No. 001-00202  | Date Issued: | May 19, 2006 |  |
| Location:  | Boise, Idaho         | Facility 1D 146: 001-00202 | Date Issued. | Way 17, 2000 |  |

# Operating Requirements

#### 4.5 Material Purchase Records

The permittee shall maintain the purchase records of all manufacturing-related materials for the SBU Parts Coatings Plasma Spray Area process such that compliance with Permit Condition 4.3 can be demonstrated. The purchase records shall remain on site for the most recent two year period and shall be made available to DEQ representatives upon request.

#### 4.6 Material Safety Data Sheets

The permittee shall maintain the MSDSs for the manufacturing-related materials for the SBU Parts Coatings Plasma Spray Area process purchased pursuant to Permit Condition 4.5. The MSDSs shall remain on site at all times and shall be made available to DEQ representatives upon request.

#### 4.7 Filter Unit Operation

The air pollution control equipment listed in Table 4.1 shall be operated whenever the SBU Parts Coating Plasma Spray Area is operating.

#### 4.8 Monitoring Equipment

The permittee shall install, calibrate, maintain, and operate, in accordance with manufacturer specifications, equipment to continuously measure the pressure differential across each filter unit at SBUFARR1, SBUFARR2, and SBUFARR3.

#### 4.9 Pressure Differential

The pressure differential across each filter unit at SBUFARR1, SBUFARR2, and SBUFARR3 shall be maintained within manufacturer and O&M manual recommendations and specifications.

#### 4.10 Operations and Maintenance Manual Requirements

Within 60 days after startup, the permittee shall have developed an O&M manual for the air pollution control equipment associated with the SBU Parts Coating Plasma Spray Area process which describes the procedures that will be followed to comply with General Provision 2 and the air pollution control device requirements contained in this permit. The manual shall remain onsite at all times and made available to DEQ representatives upon request.

# Monitoring and Recordkeeping Requirements

#### 4.11 Materials Usage Records

The permittee shall monitor and record monthly, the usage of each manufacturing-related material for the SBU Parts Coating Plasma Spray Area process. The usage records shall remain on site for the most recent two year period and shall be made available to DEQ representatives upon request.

| AIR QUALITY PERMIT TO CONSTRUCT NUMBER: P-050038 |                      |                           |               |              |
|--|----------------------|---------------------------|---------------|--------------|
| Permittee:                                       | NxEdge Inc. of Boise | Facility ID No. 001 00202 | D - 4 - 7 - 1 | 10 2006      |
| Location:  | Boise, Idaho         | Facility ID No. 001-00202 | Date Issued:  | May 19, 2006 |

# 4.12 PM<sub>10</sub>, Aluminum Oxide and Metal, and Yttrium Monitoring Requirements

The permittee shall monitor and record the monthly and annual PM<sub>10</sub>, aluminum oxide and metal, and yttrium emissions from the SBU Parts Coating Plasma Spray Area process using the purchase records required by Permit Condition 4.5, the MSDS' required by Permit Condition 4.6, and the materials usage records required by Permit Condition 4.11 to demonstrate compliance with Permit Condition 4.3. Annual emissions shall be determined by summing monthly emissions over the previous consecutive 12-month period. Records of this information shall be maintained on site for the most recent two year period and shall be made available to DEQ representatives upon request.

## 4.13 Pressure Drop

When operating, the permittee shall monitor and record once per day, the pressure differential across each filter unit at SBUFARR1, SBUFARR2, and SBUFARR3 to demonstrate compliance with Permit Conditions 4.9 and 4.10.

| AIR QUALITY PERMIT TO CONSTRUCT NUMBER: P-050038 |                      |                           |              |              |
|--|----------------------|---------------------------|--------------|--------------|
| Permittee:                                       | NxEdge Inc. of Boise | Facility ID No. 001-00202 | Date Issued: | May 19, 2006 |
| Location:  | Boise, Idaho         | Facility ID No. 001-00202 | Date Issueu: | May 19, 2000 |

#### 5. PERMIT TO CONSTRUCT GENERAL PROVISIONS

- 1. The permittee has a continuing duty to comply with all terms and conditions of this permit. All emissions authorized herein shall be consistent with the terms and conditions of this permit and the Rules for the Control of Air Pollution in Idaho. The emissions of any pollutant in excess of the limitations specified herein, or noncompliance with any other condition or limitation contained in this permit, shall constitute a violation of this permit and the Rules for the Control of Air Pollution in Idaho, and the Environmental Protection and Health Act, Idaho Code §39-101, et seq.
- 2. The permittee shall at all times (except as provided in the Rules for the Control of Air Pollution in Idaho) maintain in good working order and operate as efficiently as practicable, all treatment or control facilities or systems installed or used to achieve compliance with the terms and conditions of this permit and other applicable Idaho laws for the control of air pollution.
- 3. The permittee shall allow the Director, and/or the authorized representative(s), upon the presentation of credentials:
  - To enter, at reasonable times, upon the premises where an emissions source is located, or in which any records are required to be kept under the terms and conditions of this permit.
  - At reasonable times, to have access to and copy any records required to be kept under the terms and
    conditions of this permit, to inspect any monitoring methods required in this permit, and require
    stack compliance testing in conformance with IDAPA 58.01.01.157 when deemed appropriate by the
    Director.
- 4. Nothing in this permit is intended to relieve or exempt the permittee from compliance with any applicable federal, state, or local law or regulation, except as specifically provided herein.
- 5. The permittee shall furnish DEQ written notifications as follows in accordance with IDAPA 58.01.01.211.01 and 211.03:
  - A notification of the date of initiation of construction, within five working days after occurrence;
  - A notification of the date of completion/cessation of construction, within five working days after occurrence;
  - A notification of the anticipated date of initial start-up of the stationary source or facility not more than sixty days or less than thirty days prior to such date;
  - A notification of the actual date of initial start-up of the stationary source or facility within fifteen days after such date; and
  - A notification of the initial date of achieving the maximum production rate, within five working days after occurrence production rate and date
- 6. If performance testing (air emissions source test) is required by this permit, the permittee shall provide notice of intent to test to DEQ at least 15 days prior to the scheduled test date or shorter time period as approved by DEQ. DEQ may, at its option, have an observer present at any emissions tests conducted on a source. DEQ requests that such testing not be performed on weekends or state holidays.

| AIR QUALITY PERMIT TO CONSTRUCT NUMBER: P-050038 |                      |                            |              |              |
|--|----------------------|----------------------------|--------------|--------------|
| Permittee:                                       | NxEdge Inc. of Boise | Facility ID No. 001-00202  | Date Issued: | May 19, 2006 |
| Location:  | Boise, Idaho         | Facility ID 140. 001-00202 | Date Issueu: | Way 19, 2000 |

All performance testing shall be conducted in accordance with the procedures in IDAPA 58.01.01.157. Without prior DEQ approval, any alternative testing is conducted solely at the permittee's risk. If the permittee fails to obtain prior written approval by DEQ for any testing deviations, DEQ may determine that the testing does not satisfy the testing requirements. Therefore, at least 30 days prior to conducting any performance test, the permittee is encouraged to submit a performance test protocol to DEQ for approval. The written protocol shall include a description of the test method(s) to be used, an explanation of any or unusual circumstances regarding the proposed test, and the proposed test schedule for conducting and reporting the test.

Within 30 days following the date in which a performance test required by this permit is concluded, the permittee shall submit to DEQ a performance test report. The written report shall include a description of the process, identification of the test method(s) used, equipment used, all process operating data collected during the test period, and test results, as well as raw test data and associated documentation, including any approved test protocol.

- 7. The provisions of this permit are severable, and if any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.
- 8. In accordance with IDAPA 58.01.01.123, all documents submitted to DEQ, including, but not limited to, records, monitoring data, supporting information, requests for confidential treatment, testing reports, or compliance certification shall contain a certification by a responsible official. The certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document(s) are true, accurate, and complete.